

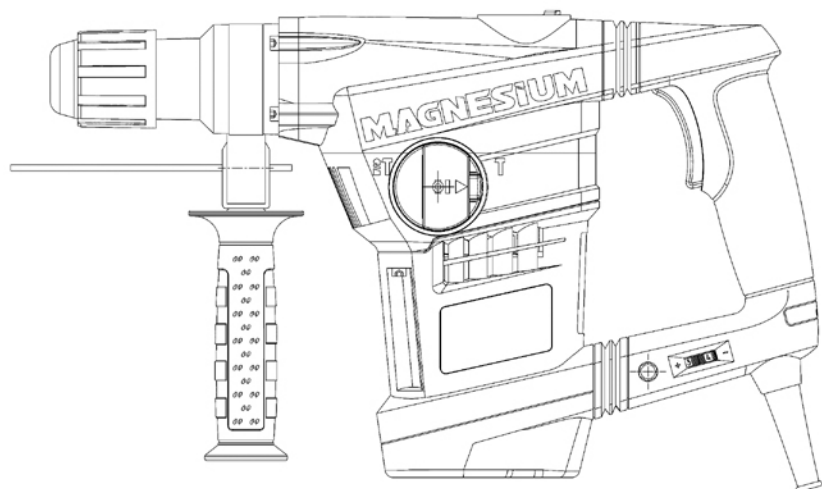
SDS-MAX Rotary Hammer

INSTRUCTION MANUAL

1-9/16" (40 mm)

CTR-4011

Model No.:Z1C-DW-40BT



Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles and ear protection. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
8. **Do not over reach.** Keep proper footing and balance at all times. Do not reach over or across running machines.

9. **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect power.** Unplug tool when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **Avoid unintentional starting.** Do not carry any tool with your finger on the trigger, whether it is plugged in or not.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **Take caution as some woods contain preservatives such as copper chromium arsenate(CCA)Which can be toxic.** When drilling these materials extra care should be taken to avoid inhalation and minimize skin contact.
15. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts: any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if the trigger does not turn On and Off properly.
16. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
17. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
18. **Use proper size and type extension cord.** If an extension cord is required, it must be of the proper size and type to supply the correct current to the tool without heating up. Otherwise, the extension cord could melt and catch fire, or cause electrical damage to the tool. This tool requires use of an extension cord of **0 to 12** amps capability(up to 50 feet),with wire size rated at **14AWG**. Longer extension cords require larger size wire. If you are using the tool outdoors. use an extension cord rated for outdoor use.(signified by "WA" on the jacket).

Service

- a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Special Warning for Electric hammer

- Wear ear protection. Exposure to noise can cause hearing loss.
- Use auxiliary handle with the tool. Loss of control can cause personal injury.

Additional safety instructions for your hammer drill

- Wear protective goggles.
- When working, sparks or flying splinters, shavings, and dust can cause loss of vision.

Symbol



"WARNING – To reduce the risk of injury, user must read instruction manual"

Environmental Protection



Waste electrical products should not be disposed of with house hold waste, Please recycle where facilities exist. Check with your local Authority or retailer for recycling advice.

Product specifications

Shank	SDS MAX
Voltage	120VAC
Amps	11.00
Impact rate	1250~ 2800/min
Impact energy per stroke	3-10J
Nominal speed	200~450/min
Concrete(Carbide-tipped bit)	1-9/16"(40 mm)
Concrete(Core Bit)	4-1/8"(105 mm)

Weight (without accessories) approx. 7.29kg

Degree of protection / II

Vibration:

"hammer drilling concrete" $a_{h,HD}=19.402\text{ m/s}^2$, $K=1.5\text{ m/s}^2$

"chiselling" $a_{h,ChBq}=18.685\text{ m/s}^2$, $K=1.5\text{ m/s}^2$

noise:

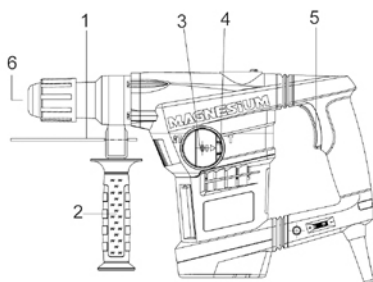
sound pressure level: chiseling mode: $L_{PA}=95.1\text{ dB(A)}$ $K_{PA}=3\text{ dB}$;

sound power level: : chiseling mode: $L_{WA}=106.1\text{ dB(A)}$ $K_{WA}=3\text{ dB}$;

Intended Use

The machine is intended for hammer drilling in concrete, brick and stone.

Product Elements



1. Depth stop
2. Auxiliary handle
3. Operational mode selection switch 1
4. Unlocking button
5. On/Off switch
6. SDS-MAX drill chuck

! For Your Safety



Working safely with this machine possible only when the operating and safety information are read completely and the instructions contained therein are strictly followed.



Before using for the first time, ask for a practical demonstration.

If the cable is damaged or cut through while working, do not touch the cable but immediately pull the mains plug.



Never use the machine with a damaged cable.

Wear safety glasses, protective gloves and sturdy shoes.



Wear ear protection to prevent damage to your hearing.

The machine must not be damp and must not be operated in a wet environment.



Keep long hair away from the machine. Do not operate while wearing loose clothing.

- Connect the mains plug only when the tool is switched off. After using, pull the mains plug.
- Always direct the cable to the rear away from the machine.
- Do not carry the machine by the cable.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance.
- During pauses in the work, when not in use or during work on the machine itself (e.g., changing of the working tools, repairs, cleaning, adjustment), pull the mains plug.
- Persons under 16 year of age are not permitted to operate this machine.
- Keep the tool accessories out of the reach of children.
- Only use original accessories.

Before Use



Be careful of hidden electrical lines or gas and water pipes. Check the working area, e.g. with a metal detector.

Always use the correct supply voltage!

The voltage of the power source must agree with the value given on the nameplate of the machine. Machines designated for 120 V can also be operated with 110 V.

Tool Changing

Take care that the dust protection cap 3 is not damaged when changing tools.



The SDS-MAX tool is designed to be freely movable. This causes eccentricity when the machine is offload. However, the drill automatically centres itself during operation. This does not affect drilling precision.

Inserting

Clean and lightly the tool before inserting.

Insert the dust-free tool into the tool holder with twisting until it latches.

The tool locks itself. Check the locking by pulling on the tool.

Removing

Pull the locking sleeve 6 to the rear and hold while removing the tool.

Putting into Operation

Operation

Switching on: Press the on- off switch 5

Switching off: Release the on- off switch 5

Overload Clutch

If the drill bit becomes jammed or caught, the drive to the drill spindle is interrupted.

- Because of the forces that occur as a result, always hold the machine with both hands and take a secure stance. The machine should be used only with an auxiliary handle.

Auxiliary Handle

You will be able to obtain a safe position when working by rotating the handle attachment. Loosen and turn the handle attachment in an anticlockwise direction.

The tighten the handle attachment.

Depth Stop

Loosen the winged screw on the auxiliary handle .
Adjust the drilling depth on the depth stop .
Retighten the winged screw.

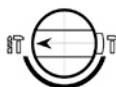
Operating Modes



Warning!

**When switching operation modes ,
Please trigger ON/OFF switch slightly.**

- Hammer drill mode:
Push the button 4 release lock and
turn switch 3 to the " " direction.(Fig.).



Fig

- Chisel mode
Push the button 4 release lock and
then turn switch 3 to the " " direction.(Fig.)



Fig

Working Instructions

Sharpening the Chiselling Tools

With sharpened insertion tools, one achieves good working performance and long service life. Therefore, sharpen the chisel regularly.

Sharpen the chisel regularly.

Sharpen the tool on a grinding wheel (e.g. alumina oxide) with constant water supply.

Maintenance and Cleaning

Before any work on the machine itself, pull the mains plug.

For safe and proper working, always keep the machine and the ventilation slots clean.

Clean the tool mount daily.

Replacing the Dust Protection Cap

Damaged dust protection caps should be replaced as possible since dust that enters the tool holder can cause malfunctions.

Pull back and hold the locking sleeve 5, pull off the dust cap 4 with a suitable tool.

With the locking sleeve pulled back, pull on the new dust cap until it sits firmly over the tool holder and the locking sleeve can again be slid forward.

If the machine should happen to fail despite the care taken in manufacture and testing, repair should be carried out by an authorised customer services agent for Canadian Hardware & Tools Power Tools

Environmental Protection



Recycle raw materials instead of disposing as waste.

Machine, accessories and packaging should be sorted for environment-friendly recycling.

These instructions are printed without chlorine.

The plastic components are labelled for categorized recycling.

Guarantee

We guarantee CTR products in accordance with statutory/country-specific regulations (proof of purchase by invoice or delivery note).

Damage attributable to normal wear and tear, overload or improper handling will be excluded from the guarantee.

In case of a claim, please send the machine, **completely assembled**, to your dealer or the service Centre for electric power tools.



F• Tool Lubrication

1. Your tool has been properly lubricated and is ready to use.
2. Time To Lubricate:

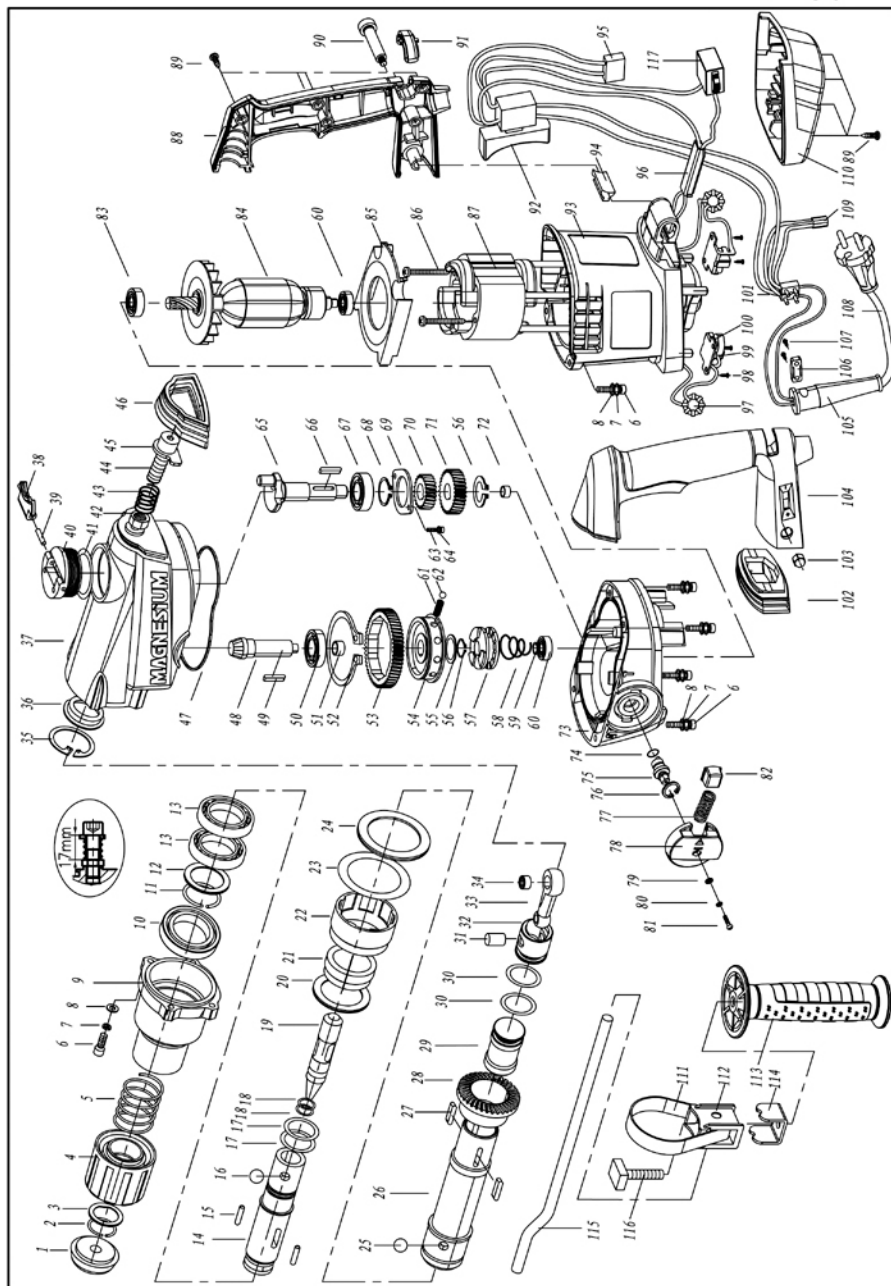
When the tool has worked for more than 60 hours, and the brake appears to be not strong enough, it must be lubricated. First, open the cover #40

and then clean up the used lubricant with a towel. At last, grease the power tool 30 g special lubricant.



Caution:

1. Do not grease more than 30 g; otherwise the tool will not function properly.
2. It is recommended that the tool with gears be regressed with a special gear lubricant. Other lubricants will harm the tool.



Part List

No.	Description	qty	No.	Description	qty	No.	Description	qty
1	Front cover	1	42	Hexagon nut M12	1	83	Bearing 6001	1
2	Circlip	1	43	Damping spring	1	84	Rotor	1
3	Washer	1	44	Hexagon nut M12x40	1	85	Air guider	1
4	Slider	1	45	Damping washer	1	86	Self tapping screw ST4.8X60	2
5	Spring	1	46	Up damping cover	1	87	stator	1
6	Screw M5X28	12	47	Seal ring	1	88	Right handle	1
7	Spring washer $\phi 5$	12	48	Small bever gear	1	89	Self tapping screw ST4.2X19	9
8	Flat washer $\phi 5$	12	49	Flat pin 4x22	1	90	Hexagon nut M6	1
9	Cylinder housing	1	50	Bearing 16003	1	91	Neon lamp cover	1
10	Grease Seal	1	51	Bearing HK152012	1	92	Trigger switch	1
11	Criclip	1	52	Circlip $\phi 58$	1	93	Motor plastic housing	1
12	Big washer	1	53	Flower hole gear	1	94	Damping block	1
13	Bearing 61808	2	54	Second gear	1	95	Capacitor	1
14	Guard sleeve	1	55	Washer	1	96	Wiring loom	1
15	Steel ball pole $\phi 8 \times 1$	2	56	circlip $\phi 15$	1	97	Inductor	2
16	Steel ball $\phi 7.94$	3	57	Clutch	1	98	Self tapping screw ST4X12	4
17	O-ring $\phi 28 \times \phi 2$	2	58	Conical spring	1	99	Carbon brush set	2
18	O-ring $\phi 19 \times \phi 2$	2	59	Small washer	1	100	Brush holding set	2
19	Second striker	1	60	Bearing 608	2	101	Connecting terminal	1
20	Washer	1	61	Clutch spring	10	102	Down damping cover	1
21	Lock ring	1	62	Steel ball $\phi 5.5$	10	103	Domed cap nut M6	1
22	Plastic pipe	1	63	Spring washer $\phi 4$	2	104	Left handle	1
23	Seal ring $\phi 68 \times \phi 59 \times 2.5$	1	64	Hexagon nut M4X13	2	105	Cable sheath	1
24	Big washer $\phi 68 \times \phi 50 \times 2$	1	65	Crank shaft	1	106	Cable pressing plate	1
25	Steel ball $\phi 9$	3	66	Flat pin 4x16	1	107	Self tapping screw ST4X16	2
26	Cylinder	1	67	Bearing 6003	1	108	Cable	1
27	Flat key 3x18	2	68	Circlip $\phi 17$	1	109	Neon lamp	1
28	Big bevel gear	1	69	Bearing cover	1	110	Bottom cover	1
29	Striker	1	70	Small gear	1	111	Collar	1
30	O-ring $\phi 28 \times \phi 3$	2	71	First gear	1	112	Clamp holder	1
31	Piston pin	1	72	Needle bearing HK101610	1	113	Side handle	1
32	Piston	1	73	Gear housing	1	114	Locking block	1
33	Connecting rod	1	74	O-ring $\phi 11 \times \phi 1.5$	1	115	Stop rod	1
34	Needle bearing HK101612	1	75	Knob handle	1	116	Square head screw M8X45	1
35	Circlip for hole $\phi 56$	1	76	Circlip $\phi 15$	1	117	Speed controller	1
36	Oil bearing	1	77	Knob spring	1	118		
37	Crank housing		78	Side switch	1	119		
38	Moving plate	1	79	Small washer $\phi 3$	1			
39	Pin B4x40	1	80	Spring washer $\phi 3$	1			
40	Grease cover	1	81	Cross nut M3X12				
41	O-ring $\phi 41 \times \phi 1.5$	1	82	Locking block	1			